

AMENDMENTS TO THE CLAIMS

Please amend claims 1-3, 11, 19, 20, 27, 28, 41, 42, 44, 49 and 50; please add new claims 53-71 such that the status of pending claims 1 - 71 is as follows:

1. (Currently Amended) A method for axially moving a tube in a borehole in the ground, wherein the tube is moved simultaneously along and about its axis and wherein a drill is used of which the rate of material removal is independent of the direction or speed of rotation of the tube about its axis, and wherein a drive mechanism for the drill is connected to the ground tube and is rotated jointly with the tube wherein the tube is moved about its axis in a series of alternating, angularly opposite, rotating movements within a limited angular range of rotation, the angular range comprising at least one full rotation of 360° .
2. (Currently Amended) A method according to claim 1, wherein the limited angular range of rotation is preselected to comprise less than 1800° , ~~preferably less than 1080° , in particular less than 720° .~~
3. (Currently Amended) A method according to claim 1, wherein the time needed to complete two consecutive, alternating angularly opposite rotating movements is at least 10 s, ~~preferably at least 20 s.~~
4. (Previously Presented) A method according to claim 1, wherein the frequency of alternating angularly opposite rotating movements is such that an oscillation is generated that corresponds to the base or higher order natural frequency of the tube.
5. (Previously Presented) A method according to claim 1, wherein a series of alternating, angularly opposite, rotating movements within the pre-selected angular range of rotation is preceded and/or succeeded by a non-oscillating, continuous rotating movement about its axis.

6. (Previously Presented) A method according to claim 1, wherein said tube is composed by connecting successive tube parts rotationally rigid end-to-end.
7. (Previously Presented) A method according to claim 6, wherein tube parts are connected end-to-end by welding.
8. (Previously Presented) A method according to claim 6, wherein said tube parts are connected while axially inserting the tube into the borehole.
9. (Previously Presented) A method according to claim 1, wherein the tube is axially moved into the borehole in the ground to form a casing for a borehole.
10. (Previously Presented) A method according to claim 9, wherein the tube is inserted while a borehole is being drilled by a drill.
11. (Currently Amended) A method according to claim 1, wherein the moving of the tube in said series of alternating, angularly opposite, rotating movements is followed by a second series of such movements within a second preselected angular range, which second preselected angular range of rotation includes less than 360°, preferably less than 180° to remove ground in a circular segment at the tube end, such that, when the tube is axially advanced into the borehole, a tip of the tube is advanced along a curved path.
12. (Previously Presented) A method according to claim 1, wherein the torque exerted on the tube at the surface is measured while performing angularly symmetrical opposite, rotating movements within the preselected angular range to determine a mid-point of lower torque values.

13. (Previously Presented) A method according to claim 1, wherein relative angular orientation of tube sections axially spaced apart is monitored.

14. (Previously Presented) A method according to claim 13, wherein said monitoring includes observing an axial line provided on the outside of the tube.

15. (Previously Presented) A method according to claim 13, wherein said monitoring includes detecting angular orientations of axially spaced magnetic markings on the outside of the tube.

16. (Previously Presented) A method according to claim 15, wherein said series of alternating, angularly opposite, rotating movements have an azimuth at the tube tip, said azimuth at the tube tip being controlled in response to the orientation of the tube in the area of the ground surface.

17. (Previously Presented) A method according to claim 16, wherein an alternating torque having an azimuth is exerted to said tube, said azimuth at the tube tip being further controlled in response to the orientation of the tube in the area of the ground surface when said azimuth of said torque occurs.

18. (Previously Presented) A method according to claim 1, wherein pumping of mud is continued while a connection with a next tube section is being made via a hose and packer combination which sealingly connects to the tube section in the hole.

19. (Currently Amended) A device for axially moving a tube in a borehole in the ground, comprising means for moving the tube along and about its axis and connections for connecting the ground tube to a drive mechanism for a drill carried on a bottom most part of the tube and rotating jointly with the tube, wherein the means for moving the tube about its axis comprises a rotational drive that is arranged to drive the tube to rotate about its axis in at least one full rotation and that is

operatively coupled to control means for controlling the drive to perform alternating, angularly opposite, rotating movements within a limited angular range of rotation, the angular range comprising at least one full rotation of 360° .

20. (Currently Amended) A device according to claim 19, wherein the limited angular range of rotation is preselected to comprise less than 1800° ; ~~preferably less than 1080° , in particular less than 720° .~~

21. (Previously Presented) A device according to claim 19, wherein the rotational drive and the control means are further configured to selectively control the drive to perform a continuous, non-alternating, rotating movement.

22. (Previously Presented) A device according to claim 19, wherein it comprises a welding apparatus for welding tube segments end-to-end to form a composed tube, which welding apparatus is arranged to rotate substantially jointly with the tube to be moved in the borehole.

23. (Previously Presented) A device according to claim 22, wherein it is provided with means for surface treatment of the inner and/or outer surface of the tube to be inserted.

24. (Previously Presented) A device according to claim 22, wherein it is provided with means for aligning and positioning tube ends to be connected.

25. (Previously Presented) A device according to claim 19 in combination with a packer for sealing the tube and arranged to rotate substantially jointly therewith, comprising connecting means for connecting to a fluid or energy supply, wherein said connecting means are arranged to fixedly couple the packer to a flexible fluid or energy supply extending from the fluid source.

26. (Previously Presented) A method for axially moving a tube in a borehole in the ground, wherein the tube is moved simultaneously along and about its axis, wherein the ground is removed at the tube end, and wherein moving the tube about its axis (A) comprises moving the tube in a first series of alternating, angularly opposite, rotating movements within a first preselected angular range of rotation, the first preselected angular range being a limited range of rotation, wherein the first preselected angular range comprises at least one full rotation of 360° .

27. (Currently Amended) A method according to claim 26, wherein the first angular range of rotation is preselected to comprise less than 1800° , ~~preferably less than 1080° , in particular less than 720° .~~

28. (Currently Amended) A method according to claim 26, wherein the time needed to complete two consecutive, alternating angularly opposite rotating movements is at least 10 s, ~~preferably at least 20 s.~~

29. (Previously Presented) A method according to claim 26, wherein the frequency of alternating angularly opposite rotating movements is such that an oscillation is generated that corresponds to the base or higher order natural frequency of the tube.

30. (Previously Presented) A method according to claim 26, wherein a series of alternating, angularly opposite, rotating movements within the preselected angular range of rotation is preceded and/or succeeded by a non-oscillating, continuous rotating movement about its axis.

31. (Previously Presented) A method according to claim 26, wherein said tube is composed by connecting successive tube parts rotationally rigid end-to-end.

32. (Previously Presented) A method according to claim 31, wherein tube parts are connected end-to-end by welding.

33. (Previously Presented) A method according to claim 31, wherein said tube parts are connected while axially inserting the tube into the borehole.

34. (Previously Presented) A method according to claim 26, wherein the tube is axially moved into the borehole in the ground to form a casing for a borehole.

35. (Previously Presented) A method according to claim 34, wherein the tube is inserted while a borehole is being drilled by a drill.

36. (Previously Presented) A method according to claim 26, wherein the torque exerted on the tube at the surface is measured while performing angularly symmetrical opposite, rotating movements within the preselected angular range to determine a mid-point of lower torque values.

37. (Previously Presented) A method according to claim 26, wherein relative angular orientation of tube sections axially spaced apart is monitored.

38. (Previously Presented) A method according to claim 37, wherein said monitoring includes observing an axial line provided on the outside of the tube.

39. (Previously Presented) A method according to claim 37, wherein said monitoring includes detecting angular orientations of axially spaced magnetic markings on the outside of the tube.

40. (Previously Presented) A method according to claim 26, wherein pumping of mud is continued while a connection with a next tube section is being made via a hose and packer combination which sealingly connects to the tube section in the hole.

41. (Currently Amended) A method according to claim 26, wherein the first series of alternating, angularly opposite, rotating movements is followed by a second series of such movements within a second preselected angular range, which second preselected angular range of rotation includes less than 360° , ~~preferably less than 180°~~ , to remove ground in a circular segment at the tube end, such that, when the tube is axially advanced into the borehole, the tip of the tube is advanced along a curved path.

42. (Currently Amended) A method according to claim 26, wherein the first series of alternating, angularly opposite, rotating movements is preceded by a second series of such movements within a second preselected angular range, which second preselected angular range of rotation includes less than 360° , ~~preferably less than 180°~~ , to remove ground in a circular segment at the tube end, such that, when the tube is axially advanced into the borehole, the tip of the tube is advanced along a curved path.

43. (Previously Presented) A device for axially moving a tube in a borehole in the ground, comprising means for moving the tube along and about its axis, whereby the means for moving the tube about its axis comprises a rotational drive that is operatively coupled to control means for controlling the drive to perform alternating, angularly opposite, rotating movements within a first preselected angular range of rotation, the first preselected angular range being a limited range of rotation, wherein the first preselected angular range comprises at least one full rotation of 360° .

44. (Currently Amended) A device according to claim 43, wherein the first angular range of rotation comprises less than 1800° , ~~preferably less than 1080° , in particular less than 720°~~ .

45. (Previously Presented) A device according to claim 43, wherein the rotational drive and the control means are further configured to selectively control the drive to perform a continuous, non-alternating, rotating movement.

46. (Previously Presented) A device according to claim 43, which device comprises a welding apparatus for welding tube segments end-to-end to form a composed tube, which welding apparatus is arranged to rotate substantially jointly with the tube to be moved in the borehole.

47. (Previously Presented) A device according to claim 46, which device is provided with means for surface treatment of the inner and/or outer surface of the tube to be inserted.

48. (Previously Presented) A device according to claim 46, which device is provided with means for aligning and positioning tube ends to be connected.

49. (Currently Amended) A device according to claim 43, wherein the control means is further arranged to control the drive to perform a second series of alternating, angularly opposite, rotating movements within a second preselected angular range, following the first series of such movements, which second preselected angular range of rotation includes less than 360° , ~~preferably less than 180° .~~

50. (Currently Amended) A device according to claim 43, wherein the control means is further arranged to control the drive to perform a second series of alternating, angularly opposite, rotating movements within a second preselected angular range, preceding the first series of such movements, which second preselected angular range of rotation includes less than 360° ~~preferably less than 180° .~~

51. (Previously Presented) A device according to claim 43 in combination with a packer for sealing a tube comprising connecting means being arranged to fixedly couple the packer to a flexible

fluid or energy supply, wherein the packer and the flexible fluid or energy supply are arranged to rotate substantially jointly with the tube.

52. (Previously Presented) The combination of claim 51, wherein the flexible fluid or energy supply extends from a fluid source or energy source.

53. (New) A method according to claim 11, wherein the second preselected angular range of rotation includes less than 180° .

54. (New) A method according to claim 41, wherein the second preselected angular range of rotation includes less than 180° .

55. (New) A method according to claim 42, wherein the second preselected angular range of rotation includes less than 180° .

56. (New) A device according to claim 49, wherein the second preselected angular range of rotation includes less than 180° .

57. (New) A device according to claim 50, wherein the second preselected angular range of rotation includes less than 180° .

58. (New) A method according to claim 3, wherein the time needed to complete two consecutive, alternating angularly opposite rotating movements is at least 20 s.

59. (New) A method according to claim 28, wherein the time needed to complete two consecutive, alternating angularly opposite rotating movements is at least 20 s.

60. (New) A method according to claim 1, wherein the moving of the tube in said series of alternating, angularly opposite, rotating movements is preceded by a second series of such movements within a second preselected angular range, which second preselected angular range of rotation includes less than 360° , to remove ground in a circular segment at the tube end, such that, when the tube is axially advanced into the borehole, a tip of the tube is advanced along a curved path.

61. (New) A method according to claim 60 wherein the second preselected angular range of rotation includes less than 180° .

62. (New) A device according to claim 19, wherein the control means is further arranged to control the drive to perform a second series of alternating, angularly opposite, rotating movements within a second preselected angular range, which second preselected angular range of rotation includes less than 360° .

63. (New) A device according to claim 62, wherein the second preselected angular range of rotation includes less than 180° .

64. (New) A method according to claim 2, wherein the limited angular range of rotation is preselected to comprise less than 1080° .

65. (New) A method according to claim 64, wherein the limited angular range of rotation is preselected to comprise less than 720° .

66. (New) A method according to claim 20, wherein the limited angular range of rotation is preselected to comprise less than 1080° .

67. (New) A method according to claim 66, wherein the limited angular range of rotation is preselected to comprise less than 720° .

68. (New) A method according to claim 27, wherein the limited angular range of rotation is preselected to comprise less than 1080° .

69. (New) A method according to claim 68, wherein the limited angular range of rotation is preselected to comprise less than 720° .

70. (New) A method according to claim 44, wherein the limited angular range of rotation is preselected to comprise less than 1080° .

71. (New) A method according to claim 70, wherein the limited angular range of rotation is preselected to comprise less than 720° .